

### Remarks/Arguments

Reconsideration of the above-referenced application is requested. Claims 1-8 are pending.

Claims 1-8 have been rejected under 35 USC 103(a) as being obvious over Sawyer et al. (US 3,369,932) in view of Mao et al. (EP 0 841 351 A2).

It was argued in the office action that Sawyer et al. teach a wax-polymer emulsion blend suitable to film coat paper, cloth and fibers. The blend is reported to be moisture vapor resistant and exhibit unexpectedly improved toughness, flexibility, tensile strength, elongation and resistance to cracking at low temperatures. It was also argued that Mao et al. teach the claimed polymer emulsion which is used in an adhesive composition and that it would have been obvious to a skilled artisan to make the wax-resin emulsion film coating composition taught by Sawyer et al., with the specific polymer emulsion composition disclosed by Mao et al., motivated with the desire to form a film with excellent bond, peel, cohesive strength, and stability. With regard to claim 8, it was argued that Mao et al. teach adding methacrylic acid but not ethylene acrylic acid and the position of the Examiner was that methylene and ethylene acrylic acid were interchangeable constituents since they are similar in chemistry and functionality.

In response, there are distinct differences between the claimed invention and the teachings of Sawyer et al. that would teach away from combining the teachings of Sawyer et al. with those of Mao et al.

First, the claimed invention is directed to a blend of a paraffin wax emulsion and a specific polymer emulsion, wherein a dried coating of the blend on a substrate has a hydrostatic head barrier sufficient to prevent passage of aqueous fluids but allow passage of water vapor through it. The blend taught by Sawyer et al. prevents passage of water vapor through the dried coating of the blend, making it useful for coating paper and carton boards.

Second, the polymers taught by Sawyer et al. contain at least 60 moles of ethylene per 100 moles of alkene. The polymers are composed entirely of alkenes, such as ethylene and propylene. The polymers of this invention can contain 0 to 30 wt % of ethylene which is well below the level of ethylene in the polymers disclosed by Sawyer et al. However the polymers of this invention are composed primarily of one or more  $C_{1-12}$  esters of acrylic or methacrylic acid and a vinyl ester of a  $C_{13}$  *neo*-acid. Based on the requirement of Sawyer et al. for the presence of at least 60 mole percent ethylene in the polymer of the polymer

emulsion component, the polymers disclosed by Mao et al. would not be appropriate for the blends disclosed by Sawyer et al.

To summarize, the polymers disclosed by Mao et al. do not have the same or similar composition to the polymers disclosed by Sawyer et al., specifically with regard to the ethylene content. Sawyer et al. teaches away from the polymers of Mao et al. by requiring the present of at least 60 mole %, preferably 80 to 95 mole % ethylene, in the polymers of the blend. The polymer emulsions of Mao et al. would therefore be considered inappropriate for the blend disclosed by Sawyer et al. In addition, Sawyer et al. disclose a blend which, when applied as a coating and dried, is described to be water vapor resistant. A dried coating of the blends of this invention enable passage of water vapor through it while preventing passage of aqueous fluids. Based on these distinct differences, it would not have been obvious to combine the teachings of Sawyer et al. with those of Mao et al.

With regard to claim 8, the Examiner seems to confuse the components in the wax emulsion with the monomer components of the polymer in the polymer emulsion. Claim 8 recites the presence of ethylene acrylic acid in the paraffin wax emulsion. Mao et al. (page 4, 45-47) recite the presence of methacrylic acid as a possible monomer in the polymer component of the blend. In addition, Applicant disagrees with the statement that methacrylic acid and ethylene acrylic acid are considered interchangeable. The structure of the two compounds are distinctly different and cannot be considered interchangeable.

Based on the above remarks, it is believed that a prima facie obviousness rejection of claims 1-8, based on the combined teachings of Sawyer et al. and Mao et al., has been overcome and the rejection should be withdrawn. Reconsideration of this application and its early allowance is requested.

Respectfully submitted,



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